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**COMMENTS ON ACCC CONSULTATION - ALLOCATION LIMITS ADVICE FOR 3.4 – 4.0 GHz BAND ALLOCATION IN REMOTE AREAS**

In response to the release of the ACCC consultation paper, DB Telecommunications Pty Ltd is pleased to be able to offer comment on potential allocation limits for 3.4 – 4.0 GHz band allocation in remote areas.

As an ACMA Accredited Person, David Britt of DB Telecommunications has performed a significant number of assignments for 3.6 GHz BWA services in Tasmania and remote parts of Western Australia and 1.8 GHz and 2 GHz PTS Class B services in many remote areas. This has provided DB Telecommunications with a good insight into the demand for 3.4 – 4.0 GHz services in these regions and the issues confronting incumbent and potential users of the band.

Due to time constraints associated with responses to other related ACMA consultations currently being worked on, DB Telecommunications will limit its response to a limited sub-set of the questions raised in this consultation paper.

**RESPONSE TO ISSUES FOR COMMENT**

**13. Do you consider that substitutable spectrum exists for the 3.4–4.0 GHz band in remote areas to enable the provision of services in the relevant downstream markets? If so, what spectrum do you consider to be a substitute?**

Depending on the application and the equipment being deployed, PTS Class B services operating in the 1.8 GHz and 2 GHz bands, plus 3.6 GHz BWA services could be alternative options to the use of the 3.4 GHz to 4 GHz band.

It should be noted that suitable equipment is not necessarily available in each of those bands to suit the unique requirements of a particular end user's system.

Some of those bands such as the 1.8 GHz and 2 GHz bands also have their own spectrum capacity constraints in some areas, due to incumbent licensees.

It is desirable that a range of mid band frequency be available to support the deployment of private LTE and WBB systems in remote areas. This will allow end users to select frequency bands and equipment that best suits their individual system requirements.

Mid band frequency bands below 4.0 GHz tend to suit wide area deployments in remote areas, whereas millimetre wave technology is generally only suited to very localised applications.

**14. Does the availability of substitutable spectrum differ within the remote area? Are there areas within the remote area, where no substitutable spectrum exists?**

DB Telecommunications is not aware of any remote areas where substitutable spectrum is not available, however, due to capacity constraints caused by incumbent licensees noted in the response to Q.13 above, there may effectively be no substitutable spectrum available in some areas.

In 2020 DB Telecommunications conducted a study of the availability of PTS Class B spectrum in the 1.8 GHz and 2 GHz bands, for an organisation that was looking to deploy a private LTE network covering some 200+ sites spanning both low and remote density areas.

Due to constraints associated with:

(a). the limited amount of apparatus licensed spectrum available for private LTE systems in those bands; and
(b). the unavailability of spectrum due to the presence of incumbent licensees.

it was not possible to identify any licensable spectrum in one or both bands in some areas.

**15. Should the ACCC take into account the availability of spectrum in the 1800 MHz band in remote areas when assessing the need for allocation limits? If so, how?**

Yes, the ACCC should take into account the availability of 1800 MHz when assessing the need for allocation limits, but it should note the potential capacity constraints and potential unsuitability of the 1800 MHz band for the needs of an individual system, as noted in the answers to Q.13 and Q.14.

Even though small amounts of spectrum may be available in various bands in a given area, it would be highly undesirable and possibly impractical from a terminal equipment perspective, if an operator had to try and cobble together spectrum from a number of different frequency bands in order to meet the spectrum requirements for an individual system.

16. **Do you consider that there is a risk that a single party may seek to acquire the entire, or majority, of spectrum available in any given areas? Please provide reasons and evidence for your views.**

DB Telecommunications believes that there is a real risk a single party, or a small number of parties, may seek to acquire a majority of spectrum available in a given area. DB Telecommunications has seen an example of this in the 3.6 GHz BWA band where there is 120 MHz of apparatus licensed spectrum available.

When the ACMA first introduced apparatus licensed spectrum in the 3.6 GHz BWA band outside of spectrum licensed areas, there was a limit of 30 MHz of spectrum for a single licensee in a given licence area (30 km radius). The ACMA abolished the 30 MHz limit in 2011.

DB Telecommunications is aware of an example near Devonport in Tasmania, where two licensees were able to license 110 MHz of the 120 MHz of bandwidth available in the band following the abolition of the 30 MHz limit, with the larger of the two licensees having 80 MHz. DB Telecommunications is not suggesting that the licensees concerned were trying, to undertake any anti-competitive behaviour, but the nett result was that no other potential WBB operators were able to be assigned 3.6 GHz WBB spectrum in that area in subsequent years.

Perhaps the ACMA's decision to abolish the 30 MHz limit may not have given enough recognition to the fact that there can often be a lag in the take up of these new WBB technologies in lower population density areas. This is often dependent on the increased availability of more cost-effective equipment in a given and the acquisition of greater level of technical skills to support such equipment.

When there are no allocation limits and spectrum is relatively low in cost as it is in many remote areas of Australia, organisations seeking to expand their networks by simply adding more spectrum, rather than using more spectrally efficient techniques such as using smaller cell sizes or synchronizing co-channel base stations.

17. **Do you think that allocation limits are necessary for the 3.4–4.0 GHz band allocation in remote areas? Relevantly, would allocation limits promote competition and encourage investment in the relevant markets?**

Yes, DB Telecommunications does believe that it is important that allocation limits need to be applied to the 3.4 – 4.0 GHz Band in order to allow access to as many market participants as possible to the markets in a given area.

The network study discussed in the answer to Q.14 demonstrates that where all of the available spectrum in an area is held by a small number of licensees, other organisations can effectively be prevented from offering competing or complimentary service offerings in that area.

18. **If so, what do you think the appropriate allocation limits should be? Do you think different**

**allocation limits should apply to different geographic areas within the remote area?**

Possibly limits of between 50 and 100 MHz might be appropriate.

It is possible that different allocations may need to be applied in different areas. For example, in an area outside of Kalgoorlie where there is a high concentration of mines who might want to deploy private LTE systems, tighter allocation limits might need to be applied, compared to other more isolated areas where there might be fewer potential users.

**19. How long do you think any allocation limits should apply for?**

A period of up to five years might be appropriate, to allow the pent-up demand of users to catch up with the broader availability of spectrum and equipment.

**20. Are there other factors that the ACCC should consider in assessing the possible allocation limits to apply?**

As well as allocation limits, the ACMA needs to employs follow-up monitoring to ensure that licensed spectrum is actually being used (use it or lose it).

The network study discussed in the answer to Q.14 it was not possible to identify any licensable spectrum for that system in some areas, because all of the available spectrum is held by incumbent licensees.

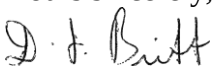
DB Telecommunications is aware of a number of sites in remote areas where 1.8 GHz and 2 GHz spectrum was licensed, but no systems are actually deployed.

Perhaps some of that spectrum was licensed in order to trial technologies such as private LTE systems, but those trials may never have progressed to final implementation and the licences never cancelled.

With 10 MHz of paired spectrum in the 1.8 GHz and 2 GHz bands costing as little as $41/pa to license in some remote parts of Australia, there is not a strong economic incentive for incumbent licensees to surrender their redundant licences. It allows them to keep their future options open with the consequence of locking out potential competitors due to spectrum scarcity.

If you would like additional information or wish to discuss any aspect of my submission, please do not hesitate to contact me on [redacted] or by email [redacted].

Yours sincerely,



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